

PATENT  
Atty. Dkt. No. ROC920010046US1  
MPS Ref. No.: IBM/K10046.Y1

### REMARKS

This is intended as a full and complete response to the Office Action dated March 21, 2005, having a shortened statutory period for response set to expire on June 21, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-26 are pending in the application. Claims 1-26 remain pending following entry of this response. Claims 1, 3, 6-13 and 15-26 have been amended. New claims 27-28 have been added to recite aspects of the invention. Applicants submit that the amendments and new claims do not introduce new matter.

#### Claim Rejections - 35 U.S.C. § 102

Claims 1, 2, 4-9, 12, 14-17, 19, 21, 22 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by *Ding*, US Patent No. 5,883,823. Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Ding* does not disclose "each and every element as set forth in the claim". For example, *Ding* does not disclose storing a plurality of odd/even index sequences of an *i* by *j* matrix (of the multimedia data) on a hard disk drive. The Examiner argues that *Ding* discloses such storing step at in column 4, line 40 through column 5, line 15 and in Figure 7. However, the cited passages and figure are in fact directed to IDCT (inverse discrete cosine transform) computations in which only a portion of an array of DCT coefficients are grouped into four odd/even index group. A regional IDCT algorithm is applied to all coefficients in the grouped portion of the array of DCT coefficients, while IDCT computations are applied only to non-zero coefficients of the remaining non-grouped coefficients. The results of these operations are

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combined and/or mapped to form the output array of spatial data. However, the indexed groups utilized during the IDCT computation are not stored on a hard disk drive. Although *Ding* disclosed that the DCT coefficients and the resulting spatial data may be stored within a memory of the video encoder or decoder system, neither the DCT coefficients nor the resulting spatial data is stored as a plurality of odd/even index sequences in *Ding*. Therefore, the rejection is improper and Applicants request that the rejection be withdrawn and the claims be allowed.

Furthermore, *Ding* does not disclose storing the odd/even index sequences in separate logic blocks on a hard disk drive. The Examiner argues that *Ding* discloses such storing step in column 8, lines 24-35. However, regarding data storage, the cited passage merely discloses that output pixel values are provided to a frame store memory 112. The cited passage does not teach show or suggest storing the odd/even index sequences in separate logic blocks in a hard disk drive. The Examiner further states that memory is known to be made up of logical blocks of data and that the logical blocks are definable in size, "as shown by the applicant (page 10)". Respectfully, page 10 contains the Applicants' Detailed Description of embodiments of the present invention. This portion of the specification is not admitted prior art, and cannot be used to reject the claimed subject matter. Therefore, the rejection is improper and Applicants request that the rejection be withdrawn and the claims be allowed.

As another example, *Ding* does not disclose indexing multimedia data representing an image having  $i$  times  $j$  subimages into an  $i$  by  $j$  matrix. The Examiner argues that *Ding* discloses such indexing of subimages in column 8, lines 24-35. However, the cited passage is in fact directed to "frames of pixel data" and "output pixel values". Therefore, the rejection is improper and Applicants request that the rejection be withdrawn and the claims be allowed.

As a further example, *Ding* does not disclose retrieving data comprising the stored index sequences from the data storage device and reconstructing the  $i$  by  $j$  matrix utilizing odd/even index sequencing of the retrieved data. The Examiner argues that *Ding* discloses such operations in column 4, line 40 through column 5, line 15 and in Figure 7, in column 7, lines 10-25, in column 8, lines 24-35 and in column 9, lines 40-63. However, the cited passages are in fact directed to converting an array of DCT

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coefficients to spatial data using *Ding*'s inverse DCT computations. None of the cited passages is directed to reconstructing the *i* by *j* matrix of data as recited in the claims.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

#### Claim Rejections - 35 U.S.C. § 103

Claims 3, 10, 11, 13, 18, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Oyamada et al.* (US Patent No. 5,617,333, hereinafter *Oyamada*) and *Ding*. The Examiner takes the position that it would have been obvious to modify the image processing system of *Ding* to use the system of estimating blocks as did *Oyamada* and that one would have been motivated to make such a combination because a means of data correction is needed with systems where large amounts of multimedia are transferred. Applicants respectfully traverse this rejection.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143. The present rejection fails to establish at least the third criteria.

As discussed above, *Ding* discloses a system and method for converting an array of DCT coefficients to spatial data using particular inverse DCT computations. However, *Ding* does not teach, show or suggest storing a plurality of odd/even index sequences of an *i* by *j* matrix (of the multimedia data) on a hard disk drive. Moreover, *Ding* does not teach, show or suggest storing the odd/even index sequences in separate logic blocks on a hard disk drive. Furthermore, *Ding* does not teach, show or suggest retrieving data comprising the stored index sequences from the hard disk drive and reconstructing the *i* by *j* matrix utilizing odd/even index sequencing of the retrieved data.

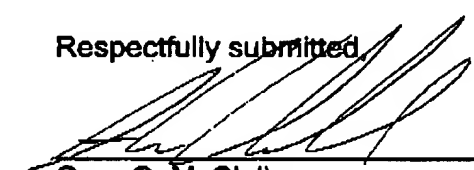
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*Oyamada* discloses an image data transmission system having a transmitter section which partitions an image data into a predetermined number of data blocks and a receiving section which detects and corrects transmission-caused errors in the received data blocks. *Oyamada* discloses nothing more than *Ding* regarding storing indexed sequences. The references cited by the examiner, either alone or combination, fail to teach or suggest all the claim limitations. Furthermore, the combination of *Oyamada* and *Ding* yields at most an interpolation system which improves the reception of the DCT coefficients and the transmission of the computed resultant spatial data utilizing the *Ding*'s IDCT computations. Therefore, the claims are believed to be in condition for allowable, and allowance of the claims is respectfully requested.

#### Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed. If the Examiner finds that the amended claims are still not in condition for allowance, Applicants respectfully requests that the Examiner kindly grant an interview to discuss further amendments that may place the application in condition for allowance.

Respectfully submitted,



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